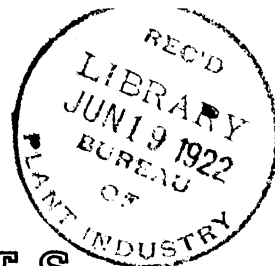


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# PLANT IMMIGRANTS.

No. 193.

MAY, 1922.

## GENERA REPRESENTED IN THIS NUMBER.

|              | Page      |            | Page |
|--------------|-----------|------------|------|
| Avena        | 1747      | Juniperus  | 1753 |
| Barringtonia | 1747      | Malus      | 1753 |
| Capsicum     | 1747      | Mangifera  | 1753 |
| Ceratonia    | 1748      | Myrianthus | 1754 |
| Coix         | 1749      | Themeda    | 1755 |
| Cupressus    | 1750      | Trifolium  | 1755 |
| Fragaria     | 1750-1752 | Triticum   | 1756 |
| Hordeum      | 1752      |            |      |

## Plates:

305. An orchard of Methley plums in Texas - (*Prunus salicina* X *cerasifera myrobalana*).
306. Fruits of the Methley plum - (*Prunus salicina* X *cerasifera myrobalana*).

Foreign Seed and Plant Introduction.

## EXPLANATORY NOTE

This circular is made up principally of notes received from agricultural explorers, foreign collaborators, and correspondents, concerning the more important plants which have been received recently by the Office of Foreign Seed and Plant Introduction. It also contains reports on the behavior of plants which have been introduced in previous years.

Descriptions appearing here are revised and later published in the Inventory of Seeds and Plants Imported,--the permanent record of plant introductions made by this Office.

Plant Immigrants should be considered merely an ANNOUNCEMENT OF THE ARRIVAL OF PLANT MATERIAL. As a rule all material is propagated before being distributed; this may require several years.

The Annual Catalogue of New Plant Introductions describes briefly the plants available for distribution. Applications for seeds or plants listed in Plant Immigrants may be sent at any time, however, and will be filed in the order of their receipt. When material is ready for distribution, these requests will be given first attention; if their number is sufficient to exhaust the available supply of a given species, it will not be included in the Annual Catalogue.

Plant breeders and experimenters who desire plants not available in this country are invited to correspond with this Office which will endeavor to secure the required material through its agricultural explorers, foreign collaborators, or correspondents.

DAVID FAIRCHILD  
*Agricultural Explorer in Charge,  
Office of Foreign Seed and Plant Introduction.*

Issued May 31, 1922. Washington, D. C.

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*Avena sativa* (Poaceae), 54911. **Oats.** From Christiania, Norway. Seeds presented by Mr. Haakon Foss, director, Agricultural Experiment Station. "'Perle havre' (pearl oats). An early variety of oats with stiff stems, selected by Dr. Christie, Hamar, Norway. It has proved valuable in the central mountain districts of Norway and should be of interest for oat growers in regions of high altitude and cold climate in the United States.

"The seeds sent were grown chiefly in 1921 at Vindingstad, the experiment farm in the central mountain districts, lying at an elevation of 550 meters (approx. 1,800 ft.).

"The yield is very high, the average for 1919 to 1921 being 3,300 kg. of grain and 6,800 kg. of straw per hectare, or approximately 92 bushels of grain and 2.7 tons of straw per acre. The grain is small, but thin husked and plump, and the plant may be grown at nearly the same altitude as barley." (Foss.)

*Barringtonia asiatica* (Lecythidaceae), 54963. From Honolulu, Hawaii. Seeds presented by Dr. H. L. Lyon, in charge, Department of Botany and Forestry, Experiment Station of the Hawaiian Sugar Planters' Association. A large, handsome East Indian tree with thick, leathery, shining bright-green leaves and very conspicuous flowers with four white petals and numerous crimson-tipped stamens, resembling a brush. The fruit is quite large and is the shape of a four-sided pyramid; it is smooth on the outside and contains one seed. The tree forms extensive beach forests on some of the Pacific Islands. In the Moluccas an illuminating oil is extracted from the seeds, and the dry fruits are gathered by the natives and used as floats for their fish nets. (Adapted from Rock, The Ornamental Trees of Hawaii, p. 663.)

It is believed that this tree might succeed on the sandy beaches and keys of Florida.

*Capsicum annuum* (Solanaceae), 54959 to 54962. **Red pepper.** From Granada, Spain. Seeds purchased by Miss Ola Powell from Sr. Juan Leyva, Granada, Spain, through Mr. Gaston Smith, American consul. Quoted notes by Miss Powell. "These peppers were much larger than any pimientos I have seen growing in the States. The flesh was very thick and crisp and of delicious flavor. I ate them as one eats apples."

54959. "'Cornicabra de Murcia.' This is the one

which is most extensively grown in Murcia and used for making ground sweet pepper. I ate many of them while in Spain. Although I was told it was too early in the season to get this year's finished product, it seemed to me that the flavor and color had been remarkably retained."

54960. "'De cuatro cascós.' The largest pimiento I found; it is claimed to be the earliest ripening pepper. There did not appear to be very many fruits to each plant. If this variety can be made to ripen early in the United States, I am sure it will prove a good one for use among Home Demonstration Club members."

54961. "'Dulce de España.' A thick-fleshed variety of delicious flavor, the plants were no larger than those of 'De cuatro cascós' but they seemed to bear more fruit. It is rather longer than the others and is the sweet pepper used in Spain for canning."

54962 "'Morrón granadino' (heart shaped). A rather choice improved variety."

*Ceratonia siliqua* (Caesalpinaceae), 54964 to 54966.  
**Carob.** From Malaga, Spain. Budwood presented by Sr. Luis Liro Ortiz, through Mr. Gaston Smith, American consul, Malaga, Spain.

"In all this region the carob grows without any cultural attention, often having the appearance of being a wild tree." (Ortiz.)

54964. "'Bravie.' Cuttings from a 35-year-old tree growing on the property of Basilia Mira Gutierrez, at Pago del Pino, district of Torrox. The tree receives no care whatever and is growing in dry, stony soil; in spite of these conditions, it produces long pods, somewhat more slender than those of 'Castellana.'" (Ortiz.)

54965. "'Castellana.' Cuttings from a tree growing on the property of the widow of Salvador Mira Rico, at Pago del Pino, in the district of Torrox, province of Malaga. The root-stock is of the 'Bravie' variety, and was top-worked to 'Castellana' seven years ago. At present it yields excellent crops of long carobs. The 'Castellana' is the only sort propagated by grafting and it is considered the most productive of all." (Ortiz.)

"The pods of the 'Castellana' are about 8 inches long, plump, and very sweet. It appears to be an excellent sort." (Wilson Popenoe.)

54966. "'Macho.'" Cuttings from a tree 30 to 35 years old, growing on the property of Salvador Molina Sanchez, at Pago del Pino, district of Torrox. It produces a large quantity of short, broad carobs." (Ortiz.)

"In recent years, carob cultivation has again received serious attention in California, and efforts are being made to secure the best varieties, - some of which have not previously been introduced, - from the Mediterranean region for trial in that State. These varieties are the best grown in the vicinity of Malaga and are recommended by Sr. Ortiz." (Wilson Popenoe.)

*Coix lacryma-jobi ma-yuen* (Poaceae), 54906. **Ma-yuen.** From Manila, Philippine Islands. Seeds presented by Mr. P. J. Wester, agricultural adviser, Bureau of Agriculture, Manila.

"'Adlay.'" When it is considered that adlay far surpasses rice in yield; that its analysis is quite similar to that of wheat; that it can be eaten like rice and also can be ground into flour and used in making biscuits and bread; that the grits make an excellent breakfast food; and that it can be grown from sea level to an altitude of more than 3,000 feet; it is fair to assume that it is only a question of time when adlay will be widely cultivated in the Tropics." (Wester.)

"Adlay has many qualities over other grains that ought to appeal to the dry-land rice farmers. First, this grain will stand a drought that would kill upland rice, and still produce a good crop; second, it is a plant that locusts do not seem to bother, - I have seen upland rice destroyed by locusts while the adlay planted around the field was not touched by them; third, adlay will produce nearly double the yield per hectare that can be expected from upland rice; fourth, the care and cultivation of one hectare of adlay can be carried on at less than one-half the cost of taking care of one hectare of upland rice.

"The food value of adlay has been known to the Filipino farmers a long time, and it has been used by them in various ways: roasted, in cakes, and as a substitute for rice. It also is a first-class feed for poultry." (W. G. McCarty, supervising agricultural agent, Santa Cruz, Laguna.)

For further description, see Philippine Agricultural Review, vol. 13, p. 217.

*Cupressus sempervirens* (Pinaceae), 54918. From Tripoli, Libia. Seeds presented by Dr. O. Fenzi. "This is first found at about 650 feet elevation, but grows at its best above 1,300 feet, where trees 100 feet high and showing the same branching habit as the old cedars of Lebanon are not rare. They are confined to the northern slope of the Cyrenaican plateau, where precipitation is much greater than on the southern slope. The wood is quite heavy and very durable." (Fenzi.)

This is the wild form of a well-known evergreen, and may differ from the varieties now in cultivation.

*Fragaria* spp. (Rosaceae), 54929 to 54958. **Strawberry.** From Bourg-la-Reine, France. Plants purchased from Millet & Fils. Quoted notes from catalogue of Millet & Fils, unless otherwise stated.

"American strawberry breeders are interested in securing, from all parts of the world, wild species of *Fragaria* as well as hybrids and horticultural varieties. The present collection has been introduced at the recommendation of George M. Darrow of this Department, principally for use in the strawberry breeding work now being conducted by the Department of Agriculture.

"In the development of European strawberries, at least four species have taken part. Prior to 1714, when the large-fruited *Fragaria chiloensis* was introduced into France from Chile, European horticulturists were limited to the small-fruited native strawberries, *F. vesca* (wood-strawberry) and *F. elatior* or *F. moschata* (the 'Haut-bois'), to which was added, shortly after 1600, the fine-flavored American species, *F. virginiana*. These three were intercrossed and gave rise to numerous horticultural forms which were in turn crossed with the Chilean species. The specific ancestry of many of the cultivated forms is somewhat obscure and are here listed as *Fragaria* spp." (Wilson Popenoe.)

*Fragaria* spp. 54929 to 54944.

54929. "'Cyrano de Bergerac.' Derived from 'St. Joseph.'"

54930. "'Jeanne d'Arc.' Resembling the 'St. Joseph,' but more vigorous and with larger fruits." (Robinson, The Vegetable Garden, p. 702.)

54931. "'La Constante.' This is a synonym of 'St. Joseph.'"

54932. "'La Perle.' A variety of the highest merit, with large pink fruits."



**AN ORCHARD OF METHLEY PLUMS IN TEXAS.**

(*Prunus salicina* × *cerasifera myrobalana*, S. P. I. No. 31652.)

The Methley plum has attracted wide and favorable comment from many parts of California and Texas. In Butte County, Calif., it has commenced to bear at two years from planting, and has yielded regularly, maturing its fruits in the latter part of May. In Texas it has withstood, without apparent injury, a severe summer drought which damaged many other plants. Furthermore, it appears to be peculiarly free from disease. The variety was introduced from Pietermaritzburg, Natal, South Africa, where it is thought to have originated as a cross between the Satsuma, a Japanese plum, and the Myrobalan, a European sort. (Photographed at the Texas Agricultural Experiment Station, College Station, Tex., November, 1921.)



**FRUITS OF THE METHLEY PLUM.**

(*Prunus salicina* × *cerasifera myrobalana*, S. P. I. No. 31652.)

The Methley plum has firm, dark red, very sweet flesh of the finest texture. The fruit is of good size and is an excellent shipper. At College Station, Tex., it matures during the first week of May. It is perhaps the earliest ripening plum in this country. (Photographed by R. L. Beagles, Plant Introduction Garden, Chico, Calif., June 6, 1914; P21069FS. Natural size.)

54933. "'La Productive.' A cross between 'St. Joseph' and 'Edward Lefort'; plants vigorous, tall; fruits large, oblong, bright red, with very juicy and very sweet pink flesh. It is an everbearing variety, flowering very early in the spring." (Robinson, The Vegetable Garden, p. 703.)

54934. "'Louis Rossignol.' An improved form of 'St. Joseph.'"

54935. "'Odette.' An everbearing variety with long fruits of very good quality."

54936. "'St. Antoine de Padoue.' A much more vigorous variety than 'St. Joseph,' the result of a cross between that variety and 'Royal Sovereign.' The large, conical fruits, - with very sweet, juicy flesh, - are borne until the end of July, then again in September and October." (Robinson, The Vegetable Garden, p. 703.)

54937. "'St. Joseph.' A bushy, rather dwarf, trailing plant which bears abundantly through the whole summer up to the first frosts. The medium-sized heart-shaped fruits have rosy white, juicy, fragrant flesh." (Robinson, The Vegetable Garden, p. 701.)

54938. "'Dr. Hogg.' Very much like the 'British Queen' in habit, but with larger, fine scarlet fruits with very solid pinkish juicy flesh having a delicate fragrance." (Robinson, The Vegetable Garden, p. 697.)

54939. "'Docteur Morère.' A very vigorous variety with very large, broad fruits which are deep red when ripe, with pink sugary flesh resembling that of the Chilean strawberry in flavor." (Robinson, The Vegetable Garden, p. 683.)

54940. "'Espoir.' A vigorous variety with very large dark-red fruits of fine quality."

54941. "'Hericart' ('Vtesse H. de Thury'). A medium-sized fruit, brilliant red and of fine quality."

54942. "'Louis Gauthier.' A tall, robust plant bearing an abundance of large round pinkish fruits having juicy, fragrant flesh of very good quality." (Robinson, The Vegetable Garden, p. 687.)

54943. "'Madame Meslé.' A vigorous plant, a cross between 'General Chanzy' and 'Dr. Morère,' which bears an abundance of very large, oblong, tapering fruits of a beautiful vermilion-red. The flesh is pink and of a delicate flavor." (Robinson, The Vegetable Garden, p. 689.)

54944. "'White Pineapple.' White fruits with excellent, very abundant, white flesh."

*Fragaria moschata*, 54945 and 54946.

54945. "'Belle Bordelaise.'" A thick-set, compact plant with rather long, often conical, fruits which ripen about the middle of June." (Robinson, The Vegetable Garden, p. 677.)

54946. "'Marguerite Lebreton.'" Very early; bears an abundance of long fruits; the best variety for forcing."

■ *Fragaria vesca*, 54947 to 54958.

54947. "'Belle de Meaux.'" Dark-red fruits, somewhat elongated, with red flesh of excellent quality."

54948. "'Belle de Paris.'" An everbearing variety with mottled leaves and very large, spherical (sometimes flattened) fruits. One of the best."

54949. "'Belle de Peraudiere.'" Blunt, red fruits with fragrant flesh."

54950. "'Belle du Mont-Cenis.'" Large, white, very good fruits."

54951. "'Belle du Mont Dore.'" A somewhat elongated fruit with firm, yellow flesh."

54952. "'Bush white.'" An alpine bushy variety with white fruits." (Robinson, The Vegetable Garden, p. 675.)

54953. "'Gaillon de Semis.'" One of the more vigorous of the everbearing varieties; for use on poor, or worn-out soils. Excellent as a border."

54954. "'Janus.'" A very fine alpine variety, very productive, with large, conical fruits which are almost black when ripe. It comes true from seed." (Robinson, The Vegetable Garden, p. 675.)

54955. "'Madame Beraud.'" A blunt variety with obtuse red fruits of very good quality."

54956. "'Marie de Volder.'" Elongated fruits of excellent quality."

54957. "'Millet.'" A rather early robust variety with bright-red, conical and flattened fruits with exquisite sugary flesh."

54958. "'President Meuren.'" A variety with very fine, highly colored, somewhat elongated fruits."

*Hordeum vulgare pallidum* (Poaceae), 54912 and 54913.  
**Barley.** From Christiania, Norway. Seeds presented by Mr. Haakon Foss, director, Agricultural Experiment Station. Quoted notes by Mr. Foss.

"Early varieties of barley that have proved valuable in the central mountain districts of Norway. They should be of interest to barley growers in regions of higher altitudes and cold climate in the

United States. The seeds sent were grown chiefly in 1921 at Vindingstad, the experiment farm in the central mountain districts, lying at an altitude of 550 meters (approx. 1,800 ft.)."

54912. "'Opdal cyg.'" A local variety of barley originated near Opdal in the central high mountain region. It is very early ripening and of good yield under low temperature conditions; and is used mostly on the border of the grain-growing area."

54913. "'Asplúnd cyg.'" A famous new barley variety of the 'hexastichum' type which was selected by a Swedish farmer at Asplúnd. It is not very early ripening nor very well adapted to low temperature conditions, but under medium conditions it is superior in yield and stem stiffness to all other varieties hitherto tested."

*Juniperus phoenicea* (Pinaceae), 54919. **Juniper.** From Tripoli, Libia. Seeds presented by Dr. O. Fenzi. "The *Juniperus* is much more plentiful than the *Cupressus*, (see page 1750 of this circular) so much so as to constitute about 60 per cent of the whole woody vegetation between sea level and 2,600 feet altitude. It may become over 30 feet in height, but is generally smaller. The wood is quite heavy and very durable." (Fenzi.)

This is the wild form of a well-known evergreen, and may differ from the varieties now in cultivation.

*Malus doumeri* (Malaceae), 54903. **Apple.** From Laos, French Indo-China. Seeds presented by Mr. R. Miéville, director, Station Agricole du Tranninh, Chieng Kuang. "An interesting wild apple native to the high plateaus of Indo-China, at altitudes of 800 to 2,000 meters (2,625 to 4,895 ft.) notably on Langbian and the lesser mountain ranges.

"It is a large tree which produces fruits similar in form, flavor, and color to certain varieties of Normandy cider pears.

"Although the species grows in the open forest and is uncared for by the present mountaineers, it must have been cultivated and improved at some ancient time. There remain specimens cultivated as sacred trees around certain Laos pagodas; here the trees were cared for by priests." (Aug. Chevalier.)

*Mangifera indica* (Anacardiaceae), 54690. **Mango.** From Honolulu, Hawaii. Plants presented by Mr. J. M. Westgate, agronomist in charge, Agricultural Experiment Station. "'Victoria mango.'" The original tree, 'Vic-

toria No. 9,' is a seedling growing on the residence property of Mr. Thomas G. Thrum, Honolulu, Hawaii. During the eighties a number of mango seeds were brought from the West Indies by Mr. Joseph Marsden, a Government official of Hawaii. Among the seedlings grown from the introduced seeds was one known as 'No. 9.' In 1897 a seed of this 'No. 9' was given to Mr. and Mrs. George Ashley. Mrs. Ashley germinated this seed, planting it in the front yard in its present location on June 20, 1897, the date of the Diamond Jubilee of Queen Victoria of England. For this reason the tree was called 'Victoria No. 9.' When it fruited it was discovered that the fruit was different from any of the other mangos growing in Hawaii, particularly in color. Its qualities are superior to any of the mangos formerly brought to Hawaii by Mr. Marsden.

"The tree has proved to be very prolific, often producing as many as three distinct crops per year. The fruits are but little clustered, generally hanging singly on individual stems. From the time the fruits set they are red, becoming more brilliant on ripening. Like some other mangos, the 'Victoria No. 9' reproduces its quality of fruit fairly true on seedling trees.

"Description of the fruit: size medium, weight about 9 ounces; shape oblong, slightly S-shaped and necked somewhat at stem end; apex broadly round with curve ending in a small blunt beak which sometimes contains a small holelike depression; color when ripe, shaded with brilliant vermilion over yellow ground color, - yellow ground color most evident at apex. Surface marked with small yellow dots which become overcast where red is deepest. Shoulder of fruit has delicate powdery bloom. Skin is of medium thickness, strong enough to peel well. Odor pleasant. Ripe flesh a deep rich yellow, of good texture; juice sweet acid and of flavor of the 'Pirie' mango. Seed small, weight three-fourths of an ounce. Marketing qualities rank among best varieties in Hawaii." (Willis T. Pope.)

*Myrianthus arboreus* (Moraceae), 54910. From Zomba, Nyasaland Protectorate. Seeds presented by Mr. E. M. Davy, assistant Director of Agriculture. A medium-sized ornamental tree with spreading branches, common in the dense humid forests of tropical Africa at an altitude of about 4,000 feet. The palmate leaves, with 5 to 7 leaflets, are up to 20 inches in length. The male flowers, borne in axillary clusters with peduncles 2

to 7 inches long, form a solid mass of yellow, later becoming brownish gold. The edible golden yellow fruits are often up to 4 inches in diameter, with an acidulous-sweet flesh, and in the South-West Africa Protectorate are much esteemed by the natives who bring them to the coast markets. (Adapted from Hiern, Catalogue of Welwitsch's African Plants, pt. 4, p. 995; Thiselton-Dyer, Flora of Tropical Africa, vol. 6, pt. 2, p. 231; and Wildeman, Mission Emile Laurent, vol. 1, p. 377.)

*Themeda australis* (Poaceae), 54737. **Grass.** From Hobart, Tasmania. Seeds collected by Mr. Victor O. Fletcher, Newnham, near Launceston, and presented by Mr. L. A. Evans, acting Director of Agriculture. "'Kangaroo' grass is common in many places in Australia and grows to a great height when left unmolested for a time. A peculiarity of this grass, and one which seriously hinders its multiplication, is the fact that it bears in its large ornamental flower-heads very few fertile seeds. If the farmer would only recognize this, and remove his stock during spring and summer from the fields in which kangaroo grass has a hold, a valuable fodder grass would be conserved; otherwise, there is serious danger of its being eaten out. The proof of this assertion can be seen by observing the rich growth of kangaroo grass within many railway enclosures, while without not a blade is to be seen. One would infer from its height (it sometimes grows tall enough to hide sheep), and consequent coarseness, that it would not be favored by stock, but they are extremely partial to it." (The Journal of the Department of Agriculture of Victoria, vol. 15, p. 713, under *Anthisteria imberbis*.)

*Trifolium pratense* (Fabaceae), 54739. **Red clover.** From Copenhagen, Denmark. Seeds presented by Mr. H. N. Knudsen, secretary, Danish Royal Agricultural Society. "Tystofte, No. 40" originated in a 2-year plat of "Rosendal" clover. Seeds of this variety were sown in 1900, and the clover was thus subjected to the hard winter of 1901. In 1902 the strongest plants from this test were selected, one of which was "No. 40." Later this strain was compared with others in several tests. In three or four tests, all the clovers made vigorous growth during the first year, and in this respect "No. 40" averaged well above the others. In all four tests "No. 40" gave the largest crop, fully 20 per cent better than that of the next best. These results agree well with the results of earlier tests at Lyngby and

Tystofte in which this strain decidedly surpassed all others. (Adapted from Beretning fra Statens Forsøgsvirksomhed I Plantekulture, No. 95, p. 401.)

*Triticum aestivum* (Poaceae), 54909. **Common wheat.** From Nanking, China. Seeds presented by Mr. J. Lossing Buck, acting dean, College of Agriculture and Forestry, University of Nanking. "One of our students from Shantung told us that because of floods in the autumn a large amount of wheat was planted in the spring. This is the first time I have heard of spring wheat in China. These seeds are from Tung Tsao, Koo-yung District, Shantung." (Buck.)

#### Notes from Agricultural Explorers in the Field.

Mr. J. F. Rock writes from Keng Hung (Chieng Rung), Yunnan, February 18, 1922:

"After one month and seventeen days' travel by caravan, I arrived at Keng Hung. The region I traversed took me over high mountain ranges and for days I traveled through chestnut and oak forests. I am unable to tell if they are real *Castanea* or *Castanopsis*; some of them I am sure are *Castanopsis*; others have the real chestnut fruit, not flat at the ventral side but like those of *Castanea henryi*. The trail to Kengtung, the capital of the same state, led through wonderful forests, - pine-covered hills, with oaks and tall bamboo. The Meh Len River gorge was certainly magnificent. We slept under the trees, irrespective of wild animals in this wild country, with rapids roaring at our very beds. Kengtung itself proved of great interest, especially the market, which is held every five days. The trail from Kengtung led over high hills to small alluvial plains which may have been lakes once upon a time, and which are now under rice cultivation. We usually stopped over night in the plains, sleeping in Buddhist temples, which is much safer than sleeping in the open. The whole village crowded into the temple to watch us eat, and some said they wanted us to go to bed to see how we did it. My gas lamp (pressure lamp) was of great interest. Never in all their lives had they seen such light, and what proved of greater interest was the electric flash light. They came in relays to the temple to see me press the button. Well, no white people come here. This is truly the end of the world. At a village called Chieng or Muang Lau we crossed the Chinese border. I had no trouble whatever. In the

middle of the trail there was a much faded Chinese flag, a few Chinese soldiers, and an official who was very kind. He said that, excepting a robbery at Muang Rai, -three days' journey from the border inland, the trail was quiet, as was the whole Hsip Song Pan Na, as the territory up to Szemao is called. I wish you could see the trails over these high mountains. The Chinese do not know what grade is, and it is a continual going up and down over the rockiest road you ever saw. However, the scenery and the forests are grand. Pyrus was in bloom everywhere and so were Prunus and peaches, all wild. Only the Pyrus had fruits on them. I am not as yet certain what they are; they must be the wild Yunnan pear. For a few days we walked at over 5,000 feet altitude, going down twice a day to 2,000 and even 1,800 only to go back again to 5,500 or 6,000 feet. The trail led over territory marked 'unsurveyed' on the Davis map. I did enjoy those lovely forests of oaks, chestnuts, and pines. I have collected much and I am sending, besides seeds, several thousand specimens of plants. There are many flowering bamboos among them and also ferns. Nobody ever collected in this region before, and I never saw such chestnut country.

"The plain of Muang Hai was one mass of flowering pears and at one place there was an orchard with large-fruited trees. The people said the fruits were the size of a man's fist, but the last year's crop had all been pickled, and the trees are now in flower. Muang Hai is composed of two distinct villages, a Chinese village on the plain and a Tai or Shan village on the slopes of the hills above the Chinese village. It is certainly most picturesquely situated. I called on the Chinese official, who was very courteous, and served tea.

"I was told by the priest of Muang Hun that the road between that place and Muang Rai or Muang Hai (the 'H' and 'R' are interchangeable) was full of tigers - the famous blue tiger of Yunnan - and that within the last four months six people had been attacked on that road.

"Yesterday I arrived at Keng Huang, the capital of the Hsip Song Pan Na. The Chow Haw or Chinese Director lives in the Yamen, surrounded by three walls, each with a watchtower on the corners; it looks like a fort. Here in this place there is one lone American missionary family. Their joy on seeing us was great; they had not seen a white man's face for two years. The house in which they live is built of round stones from the Mekong river bed and held together by mortar."

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